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KED BY			Application Number	10/582,46		
P TEF	RANSMITTAL		Filing Date	6/12/2006	)	
SEP & 8 2006	FORM		First Named Inventor	Look		
	5)		Art Unit	Unassign	ed	
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Total Number of	of Pages in This Submission 8		Attorney Docket Number	AM-10135	58	
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Extension  Express A  Information  Certified a  Document  Reply to I  Incomplet	After Final  Affidavits/declaration(s)  Extension of Time Request  Express Abandonment Request  Information Disclosure Statement  Certified Copy of Priority Document(s)  Reply to Missing Parts/  PP P		Petition Petition to Convert to a Provisional Application Provisional Application Provisional Application Provisional Application Provisional Application Provisional Provisio		Other Enclosure(s) (please Identify below):	
	eply to Missing Parts nder 37 CFR 1.52 or 1.53  SIGNAT HOWSON AND HOWSON	URE O	F APPLICANT, ATTOI	RNEY, C	R AGI	ENT
Signature		> /				
Printed name	May E. I	Solo				
	Mary E. Bak		·			
Date	Sept 28, 20	06		leg. No.	31,215	
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Typed or printed name

Date



## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appln. No.

: 10/582,461

Confirmation No.:

**Applicant** 

: Look et al.

Filed

: June 12, 2006

TC/A.U.

: unassigned

Examiner

: unassigned

Customer No.

: 38199

Title

: METHODS FOR PRODUCING STORAGE STABLE VIRUSES

AND IMMUNOGENIC COMPOSITIONS THEREOF

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

## INFORMATION DISCLOSURE STATEMENT

Sir:

Applicant submits to the Examiner the attached Form PTO/SB/08A/B document listing and this paper pursuant to 37 CFR § 1.56 and § 1.97-1.98. Form PTO/SB/08A/B is attached and copies of the documents are enclosed herewith. This Information Disclosure Statement is submitted more than three months from the filing date of this application, but before the receipt of a first Office Action. Therefore, no fees are believed due.

The Director is hereby authorized to charge any deficiency in any fees due with the filing of this paper or during the pendency of this application, or credit any overpayment in any fees to our Deposit Account No. 08-3040.

Express Mail No. EO 925 269 098 US

## REMARKS

Listed below are documents cited in the International Search Report dated September 9, 2005 in the corresponding International Patent Application No. PCT/US2004/041803, filed December 10, 2004. A copy of the Report is enclosed, together with copies of the documents.

- (i) International Patent Publication No. WO 03/086443, published October 23, 2003
- (ii) US Patent No. 4,273,762, issued June 16, 1981
- (iii) MAKOSCHEY et al., "Serum-Free Produced Bovine Herpesvirus Type 1 and Bovine Parainfluenza Type 3 Virus Vaccines are Efficacious and Safe", Cytotechnol., 39(3):139-145 (2002)
- (iv) TANNOCK et al., "Freeze-Drying of Respiratory Syncytial Viruses for Transportation and Storage", J. Clin. Microbiol., 25(9):1769-1771 (1987)
- (v) PHILLIPS et al., "A Study of Water Binding in Lyophilized Viral Vaccine Systems", Cryobiology, 18(4):414-419 (August, 1981)
- (vi) International Patent Publication No. WO 02/09749, published February 7, 2002
- (vii) International Patent Publication No. WO 04/017990, published March 4, 2004
- (viii) LABCONCO, "FreeZone 1 Liter Benchtop Freeze Dry Systems: User's Manual" [Online] from <a href="https://www.labconco.com/manual/freeze">www.labconco.com/manual/freeze</a>, page 24, 2003
- (ix) International Patent Publication No. WO-99/62500, published December 9, 1999
- (x) JACKSON et al., "Safety of a Trivalent Live Attenuated Intranasal Influenza Vaccine, FluMist™, Administered in Addition to Parenteral Trivalent Inactivated Influenza Vaccine to Seniors with Chromic Medical Conditions", Vaccine, 17(15-16):1905-1909 (April 9, 1999)
- (xi) International Patent Publication No. WO 02/28422, published April 11, 2002

The month of publication for documents AR, AS, AV, AAR, AAU, AAW-AAY, and BW-BY could not be determined. The years of publication for documents AR, AV, AAR, AAU, AAX, and BW-BY are sufficiently earlier than the effective US filing date and/or the foreign priority date of the present application so that the particular month of publication of the documents is not in issue (MPEP 609).

The Examiner is respectfully requested to consider the enclosed document identified in this paper and in the attached Form PTO/SB/08A/B during the course of examination of this application.

Respectfully submitted,

**HOWSON & HOWSON** Attorneys for Applicants

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Mary E. Bak Registration No. 31,215

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(Use as many sheets as necessary)

of

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	Complete if Known
Application Number	10/582,461
Filing Date	June 12, 2006
First Named Inventor	Look et al.
Art Unit	unassigned
Examiner Name	unassigned
Attorney Docket Number	AM-101358

	U.S. PATENT DOCUMENTS						
Examiner	Cite	Document Number	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where		
Initials*	No.1	Number-Kind Code <sup>2(if known)</sup>	MM-DD-YYYY	Applicant of Cited Document	Relevant Passages or Relevant Figures Appear		
	AA	US-4,084,330	04-18-1978	FRASER			
	AB	US-5,489,266	02-06-1996	GRIMARD			
	AC	US-5,732,837	03-31-1998	JONES			
	AD	US-5,882,651	03-16-1999	MURPHY et al.			
	AE	US-5,932,222	08-03-1999	RANDOLPH et al.			
	AF	US-6,077,514	06-20-2000	MAASAB et al.			
	AG	US-6,284,254	09-04-2001	MURPHY et al.			
	AH	US-6,410,023	06-24-2002	DURBIN et al.			
	Al	US-5,993,824	11-30-1999	MURPHY et al.			
	AJ	US-4,273,762	06-16-1981	MCALEER et al.			

	FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite	Foreign Patent Document	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where Relevant	Т6			
	No.1	Country Code <sup>3</sup> - Number <sup>4</sup> -Kind Code <sup>5</sup> ( <i>if known</i> )	MM-DD-YYYY	Applicant of Cited Document	Passages or Relevant Figures Appear				
	AL	WO-03/086443	10-23-2003	TRUONG-LE					
	AM	WO-02/09749	03-04-2004	PARRINGTON					
	AN	WO-04/017990	03-04-2004	DOMINOWSKI					
	AO	WO-99/62500	12-09-1999	VOLKIN et al.					
	AP	WO-02/28422	04-11-2002	COLAU et al.					

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<sup>\*</sup> EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at <a href="https://www.uspto.gov">www.uspto.gov</a> or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

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Substitute for form 1449/PTO					Complete if Known
Substitute	101 101111 1449	/F10		Application Number	10/582,461
INFORMATION DISCLOSURE				Filing Date	June 12, 2006
STATEMENT BY APPLICANT			APPLICANT	First Named Inventor	Look et al.
				Art Unit	unassigned
(Use as many sheets as necessary)			as necessary)	Examiner Name	unassigned
Sheet	2	of	4	Attorney Docket Number	AM-101358

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No.1	Include the name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item, (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>
	AR	ARYA, "Stabilization of Vaccines: To Be or Not To Be", Vaccine, 19:595-597 (2001)	
	AS	CARPENTER et al., "5 - Rational Design of Stable Lyophilized Protein Formulations: Theory and Practice", in Rational Design of Stable Protein Formulations, Klumer Academic/Plenum Publishers, New York, NY: 109-33 (2002)	
	AT	CHANOCK et al., "Serious Respiratory Tract Disease Caused by Respiratory Syncytial Virus: Prospects for Improved Therapy and Effective Immunization" Pediatrics, 90:137-142 (July 1, 1992)	
	AU	CROWE et al., "Current Approaches to the Development of Vaccines Against Disease Caused by Respiratory Syncytial Virus (RSV) and Parainfluenza Virus (PIV): A Meeting Report fro the WHO Programme for Vaccine Development" Vaccine, 13:415-421 (March, 1995)	
	AV	FRANKS et al., "Freeze-Drying: from Empiricism to Predictability. The Significance of Glass Transitions" Dev. Biol. Stand., 74:9-18 (1992)	
	AW	GLEZEN et al., "Risk of Respiratory Syncytial Virus Infection for Infants from Low-Income Families in Relationship to Age, Sex, Ethnic Group, and Maternal Antibody Level", J. Pediatr. 98:708-715 (May, 1981)	
	AX	GUPTA et al., "Restoration of Suppressor T-Cell Functions in Children with AIDS Following Intravenous Gamma Globulin Treatment", Am. J. Dis. Child, 140:143-146 (February, 1986)	
	AY	GUPTA et al., "Stabilization of RSV Against Thermal Inactivation and Freeze-Thaw Cycles for the Development and Control of RSV Vaccines and Immune Globulin" Vaccine, 14:1417-1420 (October, 1996)	
	AZ	HAMBLING et al., "Survival of the RSV During Storage Under Various Conditions, Br. J. Exp. Pathol., 45:647-655 (December, 1964)	
	AAR	HATLEY, "The Effective Use of Differential Scanning Calorimetry in the Optimisation of Freeze- Drying Processes and Formulations", Dev. Biol. Stand. 74:105-119 (1992)	
	AAS	HILLEMAN et al., "Improving the Heat Stability of Vaccines: Problems, Needs, and Approaches", Rev. Infect. Dis., 11(Suppl. 3): S613-616 (May-June, 1989)	
	AAT	JACKSON et al., "Safety of a Trivalent Live Attenuated Intranasal Influenza Vaccine, FluMist™?, Administered in Addition to Parenteral Trivalent Inactivated Influenza Vaccine to Seniors with Chromic Medical Conditions", Vaccine, 17(15-16):1905-1909 (April 9, 1999)	

Examiner	Date
Signature	Considered

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INFORMATION DISCLOSURE				Application Number	10/582,461	
				Filing Date	June 12, 2006	
STA	STATEMENT BY APPLICANT			First Named Inventor	Look et al.	
				Art Unit	unassigned	
	(Use as ma	any sheets	as necessary)	Examiner Name	unassigned	
Sheet	3	of	4	Attorney Docket Number	AM-101358	

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No.1	Include the name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item, (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>
	AAU	KATZ et al., "Appendix N: Prospects for Immunizing Against Respiratory Syncytial Virus", in New Vaccine Development Establishing Priorities, Vol. 1, Washington, National Academic Press, pp. 397-409 (1985)	
	AAV	KNEYBER et al., "Current Concepts on Active Immunization Against Respiratory Syncytial Virus for Infants and Young Children" Pediatr, Infect. Dis. J., 21(7):685-696 (July, 2002)	
	AAW	LABCONCO, "FreeZone 1 Liter Benchtop Freeze Dry Systems: User's Manual" [Online] from www.labconco.com/manual/freeze, page 24 (2003)	
	AAX	LEMON et al., "The Thermostability of Vaccines", Int. J. Technol. Assess. Health Care, 10(1):177-184 (1994)	
	AAY	MAKOSCHEY et al., "Serum-Free Produced Bovine Herpesvirus Type 1 and Bovine Parainfluenza Type 3 Virus Vaccines are Efficacious and Safe", Cytotechnol., 39(3):139-145 (2002)	
	AAZ	MARTIN et al., "Epidemiology of Respiratory Viral Infection Among Paediatric Inpatients Over a Six-year Period in North-East England", J. Lancet, 1035-1038 (November 11, 1978)	-
	BR	MCCONNOCHIE et al., "Variation in Severity of Respiratory Syncytial Virus Infections with Subtype", J. Pediatr., 117(1)(1):52-62 (July, 1990)	
	BS	MELNICK et al., "Effect of pH on Thermal Stabilization of Oral Poliovirus Vaccine by Magnesium Chloride", Proc. Soc. Exp. Biol. Med., 112:894-897 (April, 1963)	
	ВТ	PHILLIPS et al., "A Study of Water Binding in Lyophilized Viral Vaccine Systems", Cryobiology, 18(4):414-419 (August, 1981)	
	BU	RASMUSSEN et al., "Inadequate Poliovirus Immunity Levels in Immunized Illinois Children", Am. J. Dis. Child, 126:465-469 (October, 1973)	
	BV	ROBBINS et al., "Obstacles to Developing Vaccines for the Third World" Sc. Am., 259:126-133 (November, 1988)	
	BW	STARK et al., "Occurrence of Respiratory Syncytial Virus Subtypes in Hospitalized Children in Cleveland, Ohio from 1985-1988", Pediatr. Pulmonol., 11:98-102 (1991)	

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Signature	Date	
Signature	Considered	- 1
	Considered	

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MADEN Complete if Known Substitute for form 1449/PTO 10/582,461 Application Number **INFORMATION DISCLOSURE** June 12, 2006 Filing Date STATEMENT BY APPLICANT First Named Inventor Look et al. Art Unit unassigned (Use as many sheets as necessary) **Examiner Name** unassigned 4 AM-101358 Sheet of 4 Attorney Docket Number

		NON PATENT LITERATURE DOCUMENTS	
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	BX	TANNOCK et al., "Freeze-Drying of Respiratory Syncytial Viruses for Transportation and Storage", J. Clin. Microbiol., 25(9):1769-1771 (1987)	
	BY	WERTZ et al., "Approaches to Immunization Against Respiratory Syncytial Virus", Biotech., 20:151-176 (1992)	
	BZ	WULFF et al., "Respiratory Syncytial Virus: Properties of Strains Propagated in Monkey Kidneys Cell Cultures", Proc. Soc. Exp. Biol. Med., 115:458-462 (February, 1964)	

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